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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/658,165	09/08/2000	Raghu Rajan	064731.0178	3420

7590 10/18/2004

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EXAMINER	
WILSON, ROBERT W	

ART UNIT	PAPER NUMBER
2661	

DATE MAILED: 10/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/658,165	RAJAN ET AL.	
	Examiner	Art Unit	
	Robert W Wilson	2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 July 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1.0 The application of Raghu Rajan et. al. entitled "PROTECTION METHOD AND SYSTEM FOR EQUIPMENT IN A NETWORK ELEMENT" which was filed on 9/8/2000 and amended on 7/9/04 without foreign priority. Claims 1-27 were examined.

Claim Rejections - 35 USC § 103

2.0 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3.0 **Claims 1-27** are rejected under 35 U.S.C. 103(a) as being unpatentable over Gorshe (U.S. Patent NO.; 6,529,599) in view of Simon et. al. (U.S. Patent No.: 6,332,198).

Referring to **Claim 1**, Gorshe teaches: A method for protecting equipment in a network element (Figs 4-5), comprising:

Receiving a protection request for a first equipment item (WORKING UNITS or first equipment, the first equipment item having a first equipment type (per Figs 4-5 and col. 5 line 49-col. 7 line 29)

Receiving a protection request for a second equipment item, the first equipment item having a first equipment type (WORKING UNITS or second equipment per Figs 4-5 and col. 5 line 49-col. 7 line 29)

Determining a higher priority item between the first and second equipment items based upon a first and second equipment types (Figs 4-5 and col. 5 line 49-col. 7 line 29)

Performing the protection request for the higher priority item (Figs 4-5 and col. 5 line 49-col. 7 line 29)

Gorshe does not expressly call for: a first equipment type and a second equipment but teaches priority associated with failed working units per col. 7 lines 1-30

Simons teaches: a first equipment type and second equipment type (A logical identifier or equipment type is assigned to network devices or working units or equipment so as to include physical port identifier information per col. 4 lines 10-30

It would have been obvious to one of ordinary skill in the art at the time of the invention to assign a logical identifier or equipment type of Simons to the WORKING UNITS of Gorshe so that different WORKING UNITS can be identified on the BUS.

Referring to **Claim 13**, Gorshe teaches: A method for providing 1:N protection switching in a network element (Fig 4 or Fig 5 and 1:n per col. 5 line 50 or col. 6 line 44)

Receiving a protection request for an equipment item, wherein the protection request has a request type and where the equipment item has and where the equipment item (The PROTECTION BUS receives a request which inherently has a priority or request type. WORKING UNITS or equipment item per Figs 4-5 and col. 5 line 49-col. 7 line 29.)

Evaluating a priority of the request based upon the request type and the equipment type and relative to all other outstanding protection requests for equipment items in a protection group with the equipment item (The PROTECTION BUS receives a request which carries a priority or request type. The PROTECTION BUS which has an inherent controller evaluates the request from the WORKING UNITS or equipment items per Figs 4-5 and col. 5 line 49-col. 7 line 29)

If a single outstanding protection request has a request type with a highest priority among the outstanding protection requests, performing the protection request with this highest priority (col. 7 lines 9-29)

If a group of two or more outstanding protection request have request types of equally high priority, performing the protection request from this group for the highest priority equipment (col. 7 lines 9-29)

Gorshe does not expressly call for: equipment type but teaches that the priority associated with failed working units per col. 7 lines 1-30

Simons teaches: equipment type (A logical identifier or equipment type is assigned to network devices or working units or equipment so as to include physical port identifier information per col. 4 lines 10-30

It would have been obvious to one of ordinary skill in the art at the time of the invention to assign a logical identifier or equipment type of Simons to the WORKING UNITS of Gorshe so that WORKING UNITs can be identified on the BUS.

Referring to **Claim 18**, The combination of Gorshe and Simon teach the method of Claim 13. It is within the level of one skilled in the art at the time of the invention to implement the method of the combination of Gorshe and Simon in hardware and software. It would have been obvious

to one of ordinary skill in the art at the time of the invention to store the software on a medium or encoded medium.

Referring to **Claim 23**, Gorshe teaches: A system for providing protection switching for equipment in a network element (Figs 4-5)

Means for receiving a protection request for an equipment item, wherein the protection request has a request type and where the equipment item has an equipment type (Inherent Controller associated with PROTECTION BUS receives a request which has a priority or type of request per Figs 4-5 and col. 5 line 49-col. 7 line 29 or means)

Means for evaluating a priority of the request based upon the request type and the equipment type and relative to all other outstanding protection requests for equipment items in a protection group with the equipment item (The PROTECTION BUS receives a request which carries a priority or request type. The PROTECTION BUS which has an inherent controller evaluates the request from the WORKING UNITS or equipment items per Figs 4-5 and col. 5 line 49-col. 7 line 29)

If a single outstanding protection request has a request type with a highest priority among the outstanding protection requests, means for performing the protection request from this group with this highest priority (col. 7 lines 9-29)

If a group of two or more outstanding protection request have request types of equally high priority, means for performing the protection request from this group for the highest priority equipment (col. 7 lines 9-29)

Gorshe does not expressly call for: equipment type but teaches that the priority associated with failed working units per col. 7 lines 1-30

Simons teaches: equipment type (A logical identifier or equipment type is assigned to network devices or working units or equipment so as to include physical port identifier information per col. 4 lines 10-30

It would have been obvious to one of ordinary skill in the art at the time of the invention to assign a logical identifier or equipment type of Simons to the WORKING UNITS of Gorshe so that different WORKING UNITS can be identified on the BUS.

Referring to **Claim 27**, A network element for a telecommunication system (Figs 4 or Fig 5)

A protection group including a plurality of working line interface cards (WORING UNITS or working line interface cards and PROTECTION UNIT or protection line interface card)

Protection controller operable to store a state of each working and protection line interface card in the protection group (Inherent Controller or protection controller associated with PROTECTION BUS per Figs 4-5 and col. 5 line 49-col. 7 line 29)

A finite state machine operable to evaluate a priority of a request based upon a request type of the request and an equipment type of one working line interface card relative to all other outstanding protection requests for working line interface cards in the protection group with the one working line interface card (Inherent Controller associated with PROTECTION BUS performs the function of the finite state machine and evaluates the protection request which request a priority or type of request activate protection request per Figs 4-5 and col. 5 line 49-col. 7 line 29),

if a single outstanding protection request has a request type with a highest priority among the outstanding protection requests, activate the protection request with this highest priority (col. 7 lines 9-29)

and if a group of two or more outstanding protection request have request types of equally high priority, activate the protection request from this group for the highest priority of equipment type (col. 7 lines 9-29)

Gorshe does not expressly call for: equipment type but teaches that the priority associated with failed working units per col. 7 lines 1-30

Simons teaches: equipment type (A logical identifier or equipment type is assigned to network devices or working units or equipment so as to include physical port identifier information per col. 4 lines 10-30

It would have been obvious to one of ordinary skill in the art at the time of the invention to assign a logical identifier or equipment type of Simons to the WORKING UNITS of Gorshe so that different WORKING UNITS could be identified on the BUS.

In Addition Gorshe teaches the following limitations associated with Dependent Claims for a method, encoded medium and system

Regarding **Claims 2, 14, 19, & 24**, wherein the equipment items comprise line interface cards (WORKING UNITS or line interface cards per Figs 4-5)

Regarding **Claims 3, 15, 20, & 25**; wherein line interface cards each comprise a plurality of single user connections (The applicant broadly claims "single user connections". The examiner interprets a tip/ring signals from the partner unit input terminals as a single user connection per col. 5 lines 1-48 or DS-1 per col. 5 line 44 or col. 1 lines 27-50 as a single user connection.)

Regarding **Claim 4**, wherein the line connection interface cards each comprise only single user connections (The applicant broadly claims "single user connections". The examiner interprets a tip/ring signals from the partner unit input terminals as a single user connection per col. 5 lines 1-48 or DS-1 per col. 5 line 44 or col. 1 lines 27-50 as a single user connection.)

Regarding **Claims 5, 16, 21, & 26**; wherein the line interface cards each comprise the plurality of DS-1 connections (DS-1 or DS-2 col. 1 line 1-63. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the WORKING UNITS to receive DS-1 or DS2)

Regarding **Claims 6, 17, & 22**; further comprising determining the higher priority item based on a identifier of the line interface cards (The applicant broadly claims "determining the higher priority item based on a identifier of the line interface cards" which the examiner interprets as specifying a the number of channels affected by the failure or the number of circuits affected by the failure per col. 7 line 9-23. It would have been obvious to one of ordinary skill in the art at the time of the invention that specifying the number of channels affected by the failure or the number of circuits affected by the failure per col. 7 line 9-23 performs the same function as sending a identifier from a line card.)

Regarding **Claim 7**, further comprising: performing the protection request for the first equipment item in an absence of the protection request for the second equipment item (col. 5 line 48-col. 7 line 30)

Determining the higher priority item in response to receiving the protection requests for the second equipment item (col. 5 line 48-col. 7 line 30)

Deactivating the protection request for the first equipment item in response to determining the second equipment item is the higher priority item (preempt or deactivate per col. 5 line 48-col. 7 line 30)

Regarding **Claim 8**, wherein the protection request comprises and activation request (col. 5 line 48-col. 7 line 30), further comprising determining the higher priority item in response to the activation request for the first and second equipment items (col. 5 line 48-col. 7 line 30)

Regarding **Claim 9**, receiving a second request (col. 5 line 48-col. 7 line 30), the second request comprising a deactivating request for a disparate equipment item (col. 5 line 48-col. 7 line 30); and determining the higher priority item for the first request in response to the deactivation request (col. 5 line 48-col. 7 line 30)

Regarding **Claim 10**, further comprising receiving the protection request for at least one equipment from a network operator (The examiner takes official notice that an operator requested protection request is well known in the art per col. Col. 2 lines 24-51 or col. 4 lines 24-52 or col. 9 lines 30-35 per U.S. Patent No.: 5,930,232.)

Regarding **Claim 11**, further comprising receiving the protection request for at lease one of the equipment items automatically in response to failure of the equipment item (col. 5 line 48-col. 7 line 30)

Regarding **Claim 12**, wherein the protection request is a first protection request (col. 5 line 48-col. 7 line 30); further comprising: receiving a second protection request for a third equipment item (col. 5 line 48-col. 7 line 30); determining the higher priority item between the first and second equipment items if the first protection request is the higher priority request (col. 5 line 48-col. 7 line 30) and performing the second protection request if it is the higher priority request (col. 5 line 48-col. 7 line 30)

Response to Amendment

4.0 Applicant's arguments with respect to claims 1-27 have been considered but are moot in view of the new ground(s) of rejection.

The examiner respectively disagrees with the applicant's argument new the combination of Gorshe and Simon fail to disclose prioritization based upon priority type and equipment type.

The applicant broadly claims a priority type. The examiner has interpreted a priority type as the request which inherently carries value or type or priority. Gorshe teaches making a request which allows the priorities to be queued and selected based upon priority. It would have been obvious to one of ordinary skill in the art at the time of the invention that the request carries an value or priority type in order for the priorities to be queued per col. 7 lines 1-27.

Gorshe does not expressly call for: equipment type but teaches that the priority associated with failed working units can be based upon number of channels or circuits affected by the failure per col. 7 lines 1-30

Simons teaches: equipment type (A logical identifier or equipment type is assigned to network devices or working units or equipment so as to include physical port identifier information per col. 4 lines 10-30

It would have been obvious to one of ordinary skill in the art at the time of the invention to assign a logical identifier or equipment type of Simons to the WORKING UNITS or Gorshe so that a priority could be assigned based upon the number of channels or circuits affected by a failure.

5.0 Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

6.0 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert W Wilson whose telephone number is 571/272-3075. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye can be reached on 571/272-3078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Robert W. Wilson

Robert W Wilson
Examiner
Art Unit 2661

RWW
October 14, 2004

KENNETH VANDERPUYE
PRIMARY EXAMINER